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C-583-3-7-71  
March 20, 1987

**Preliminary Assessment  
Bristol Babcock Company  
Waterbury, Connecticut**

**TDD No. F1-8701-12  
Reference No. \$375CTB7PA  
CERCLIS No. CTD981898406**

## **INTRODUCTION**

The NUS Corporation Field Investigation Team (NUS/FIT) was requested by the Waste Management Division of the Region I U.S. Environmental Protection Agency (EPA) to perform a Preliminary Assessment (PA) of the Bristol Babcock Company facility in Waterbury, Connecticut (Figures 1 and 2). This work was completed under Technical Directive Document (TDD) No. F1-8701-12 issued in January 1987.

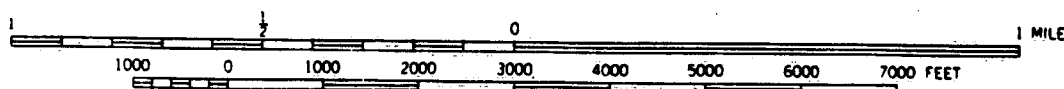
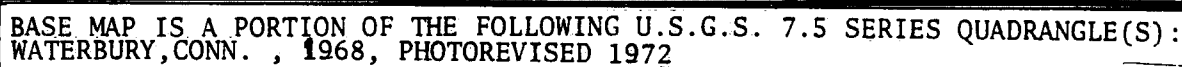
This Preliminary Assessment complies with the requirements set forth under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended. It does not necessarily fulfill the requirements of other EPA regulations such as those under the Resource Conservation and Recovery Act (RCRA). The Preliminary Assessment is not intended to be a definitive study of the site, so it is not suitable for use in planning site remediation or undertaking enforcement actions against potentially responsible parties. The Preliminary Assessment represents the first step of the site screening process set forth by the National Contingency Plan (NCP).

Bristol Babcock Company, hereafter referred to as Bristol Babcock, is listed on the Connecticut Inventory of Hazardous Waste Sites because of the alleged presence of metal hydroxide sludge lagoon. For this reason, the Connecticut Department of Environmental Protection (CT DEP) requested that EPA investigate the site.

## **FACILITY DESCRIPTION AND HISTORY**

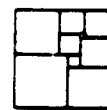
Bristol Babcock Company at 40 Bristol Street is a large industrial facility located in a residential area. Formerly American Chain and Cable, Bristol Babcock is a manufacturer of pneumatic, electrical, and mechanical controlling systems. Electroplating operations utilize organic compounds in the cleaning and degreasing process. American Chain and Cable was involved in similar operations at the site. Bristol Babcock is in the process of selling the facility and moving to a new location (MacKenzie, 1987c).

The company is listed as a large quantity generator of hazardous waste under RCRA. Since 1973, an NPDES permit has allowed Bristol Babcock to discharge, under specific conditions, treated metal finishing wastewater and cooling water to the Naugatuck River. Although a 1985 permit violation was issued by the CT DEP for high concentrations of cyanide and cadmium, Bristol Babcock is presently in full compliance with provisions of CT DEP Order No. 2499 (CT DEP, 1985).



CONNECTICUT

**BRISTOL BABCOCK COMPANY**  
**WATERBURY, CT**

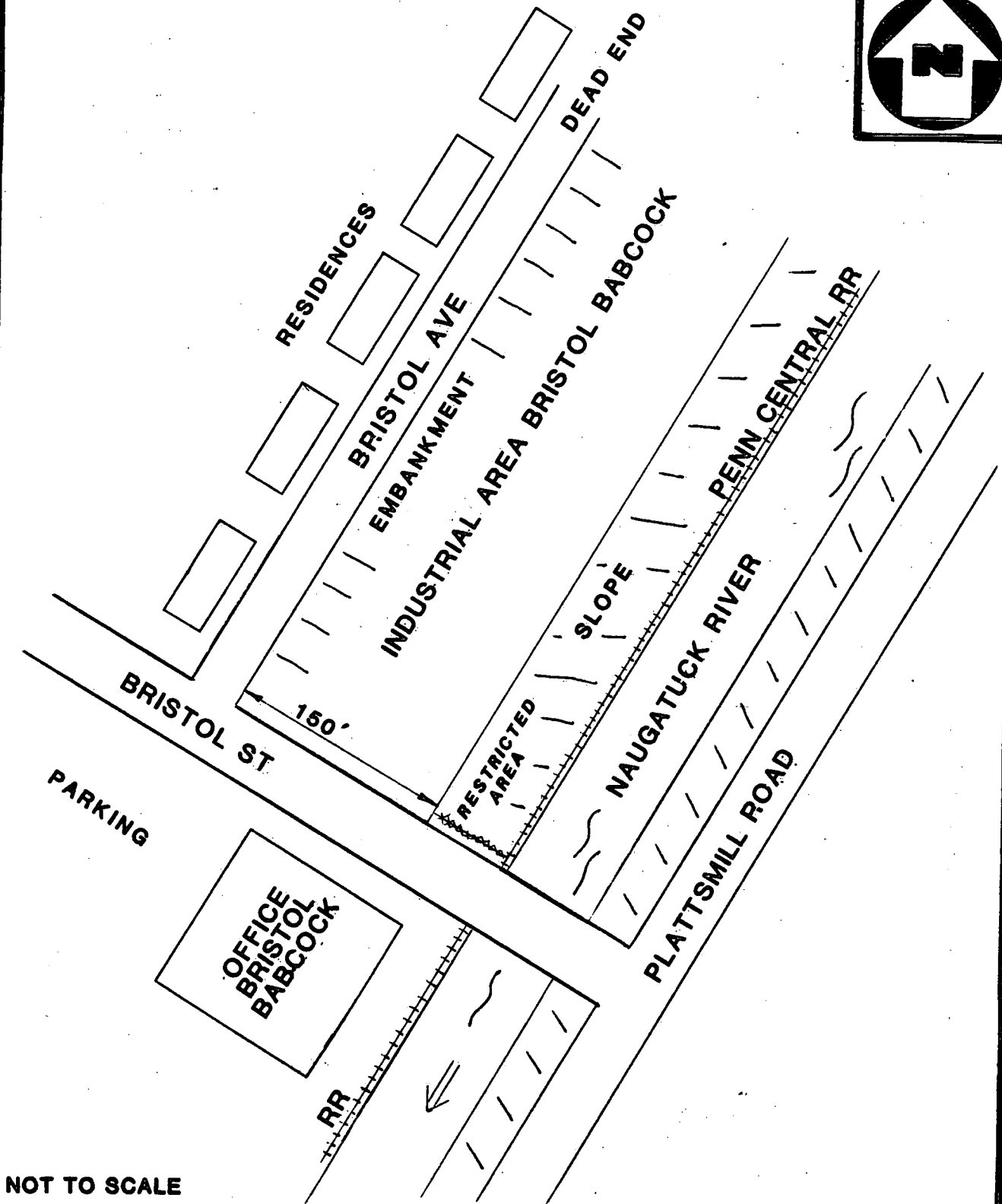
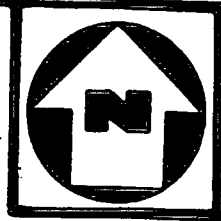


# NUS CORPORATION



**A Halliburton Company**

### FIGURE 1



NOT TO SCALE

SITE SKETCH  
**BRISTOL BABCOCK COMPANY**  
**WATERBURY, CT**



**FIGURE 2**

C-583-3-7-71  
March 20, 1987

A variety of organic compounds such as trichloroethylene, chloroform, methyl chloride, and toluene are used as solvents in the plant's degreasing process (Bristol, 1984). After repeated use, these solvents develop a sludge consistency containing a host of metal contaminants. Bristol Babcock uses a licensed RCRA transporter to dispose of sludge waste. Current annual estimates of sludge removal are nickel, 2,000 gal; copper, 1,200 gal; chromium, 1,200 gal; and floor spill treatment, 33,000 gal (DEP, 1981). Prior to RCRA, the use of a sludge lagoon was a common method of many companies for immobilizing plating wastes.

Bristol Babcock is listed on the Connecticut Inventory of Hazardous Waste Sites because of an alleged onsite metal hydroxide sludge lagoon. However, no documentation of this lagoon was found in state files and a 1983 state inspection found no evidence of onsite disposal of wastes. Although the state inspection did identify the site as having a history of onsite disposal of hazardous waste, the type of disposal was not listed in the state files. The inspection simply states that prior to 1972, unidentified industrial waste was discharged onsite, there was no mention of a sludge lagoon. Also during this time, solvents were burned onsite, and plating sludge was transported to a private landfill in Dover, NY (MacKenzie, B., 1987b).

## **ENVIRONMENTAL SETTING**

Bristol Babcock is located less than fifty feet from the Naugatuck River (Figure 2). The area between the facility and the river is restricted by a fence. The site represents the largest industrial facility in a primarily urban residential area.

The town of Waterbury is served by a network of three storage and two distribution reservoirs located approximately eight miles north of the site. The system serves 103,615 of Waterbury's 103,800 residents (CT DEP, 1980). There are no public wells in Waterbury, and the location of the town's private wells, which serve 185 residents, has not been identified.

The overburden material in the area is composed predominantly of sand and gravel. Because of the site's steep topography and proximity to the river, it is likely any mobile onsite contaminants would migrate as either runoff or groundwater to the Naugatuck River. The Naugatuck River is a major Connecticut waterway used primarily for recreational purposes.

## **CONCLUSIONS AND RECOMMENDATIONS**

Although Bristol Babcock is listed on the Connecticut Inventory of Hazardous Waste Sites because of the alleged presence of a hydroxide sludge lagoon, no further evidence has been found by this investigation to substantiate this allegation. However, if Bristol Babcock or previous owners are identified as having used an onsite metal hydroxide sludge lagoon, organic and inorganic compounds may remain onsite.

C-583-3-7-71  
March 20, 1987

Although no physical evidence of the sludge lagoon has been identified, the quantities of waste generated and the proximity of the site to the Naugatuck River and possibly to private wells leads NUS/FIT to recommend that a Site Inspection of medium priority be conducted to better assess possible contamination at the site. The previous policies and procedures of Bristol Babcock and American Chain and Cable should be carefully evaluated to verify the existence of the sludge lagoon. The inspection should include the collection and analysis of groundwater and soil samples and upstream and downstream river water and sediment samples.

Submitted By:

Brian MacKenzie  
Project Manager

Approval:

  
R. DiNitto  
Regional Manager

BM/mtb

## REFERENCES

Bristol Babcock. 1984. Solvent Management Plan.

CT DEP. 1980. Survey of Major Water Utilities in Connecticut.

CT DEP. 1981. Water Compliance Unit, Interdepartment Message 10-30-81.

CT DEP. 1985. NPDES Permit. Bristol Babcock (1-11-85)

MacKenzie, B. (NUS/FIT). 1987a. Telecon with Robin Lind (EPA) Re: RCRA status, January 26.

MacKenzie, B. (NUS/FIT). 1987b. Telecon with Rich Pease (CT DEP), Re: History of site, February 2.

MacKenzie, B. (NUS/FIT). 1987c. Telecon with Frank Santoli (Bristol Babcock), Re: Site History.

State Geological and Natural History Survey of Connecticut. 1967. (Waterbury Quadrangle), Report No. 22.



**POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 1 - SITE INFORMATION AND ASSESSMENT**

**I. IDENTIFICATION**

01 STATE 02 SITE NUMBER  
CT D981898406

**II. SITE NAME AND LOCATION**

01 SITE NAME (Legal, common, or descriptive name of site) <b>Bristol Babcock Company</b>		02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER <b>40 Bristol Street</b>			
03 CITY <b>Waterbury</b>	04 STATE <b>CT</b>	05 ZIP CODE <b>06708</b>	06 COUNTY <b>New Haven</b>	07 COUNTY CODE <b>09</b>	08 CONG DIST
09 COORDINATES LATITUDE <b>41° 31' 30"</b>		LONGITUDE <b>73° 3' 10"</b>			

10 DIRECTIONS TO SITE (Starting from nearest public road)

Take Rt. 84 south. Continue to Plattsmill Road, then head west to Bristol Street. Site is across Naugatuck River at corner of Bristol Ave. and Bristol Street.

**III. RESPONSIBLE PARTIES**

01 OWNER (If known) <b>Bristol Babcock Company</b>		02 STREET (Business, mailing, residential) <b>40 Bristol Street</b>			
03 CITY <b>Waterbury</b>	04 STATE <b>CT</b>	05 ZIP CODE <b>06708</b>	06 TELEPHONE NUMBER <b>(203) 575-3000</b>		
07 OPERATOR (If known and different from owner) <b>Frank Santoli</b>		08 STREET (Business, mailing, residential) <b>40 Bristol Street</b>			
09 CITY <b>Waterbury Connecticut</b>	10 STATE <b>CT</b>	11 ZIP CODE <b>06708</b>	12 TELEPHONE NUMBER <b>(203) 575-3455</b>		

13 TYPE OF OWNERSHIP (Check one)

☒ A. PRIVATE    ☐ B. FEDERAL: \_\_\_\_\_ (Agency name)    ☐ C. STATE    ☐ D. COUNTY    ☐ E. MUNICIPAL  
☐ F. OTHER: \_\_\_\_\_ (Specify)    ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)

☒ A. RCRA 3001 DATE RECEIVED: \_\_\_\_/\_\_\_\_/\_\_\_\_ MONTH DAY YEAR    ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: \_\_\_\_/\_\_\_\_/\_\_\_\_ MONTH DAY YEAR    ☐ C. NONE

**IV. CHARACTERIZATION OF POTENTIAL HAZARD**

01 ON SITE INSPECTION <input checked="" type="checkbox"/> YES    DATE <b>10 26 81</b> MONTH DAY YEAR <input type="checkbox"/> NO	BY (Check all that apply) <input type="checkbox"/> A. EPA <input type="checkbox"/> B. EPA CONTRACTOR <input checked="" type="checkbox"/> C. STATE <input type="checkbox"/> D. OTHER CONTRACTOR <input type="checkbox"/> E. LOCAL HEALTH OFFICIAL <input type="checkbox"/> F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____	

02 SITE STATUS (Check one) <input checked="" type="checkbox"/> A. ACTIVE <input type="checkbox"/> B. INACTIVE <input type="checkbox"/> C. UNKNOWN	03 YEARS OF OPERATION BEGINNING YEAR    ENDING YEAR <b>unknown    present</b> <input type="checkbox"/> UNKNOWN
--	--

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED

Listed on CT Inventory of Hazardous Waste Disposal Sites as having a metal hydroxide sludge lagoon. Also a 1982 Water Compliance Report identifies waste discharged to stream and ground.

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION

Metal hydroxide or other industrial waste may be present in soil. Site is adjacent to the Naugatuck River. Contaminants, if present, would most likely migrate to the river.

**V. PRIORITY ASSESSMENT**

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)

☐ A. HIGH (Inspection required promptly)    ☒ B. MEDIUM (Inspection required)    ☐ C. LOW (Inspect on time available basis)    ☐ D. NONE (No further action needed, complete current disposition form)

**VI. INFORMATION AVAILABLE FROM**

01 CONTACT <b>Rich Pease</b>	02 OF (Agency, Organization) <b>CT DEP</b>		03 TELEPHONE NUMBER <b>203 566-8843</b>	
04 PERSON RESPONSIBLE FOR ASSESSMENT <b>Brian MacKenzie</b>	05 AGENCY <b>NUS</b>	06 ORGANIZATION <b>FIT</b>	07 TELEPHONE NUMBER <b>617 275-2970</b>	08 DATE <b>03 7 87</b> MONTH DAY YEAR



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT  
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE 02 SITE NUMBER

CT D981898406

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A. SOLID  
☐ B. POWDER, FINES  
☒ C. SLUDGE  
☐ D. OTHER  
☐ E. SLURRY  
☐ F. LIQUID  
☐ G. GAS  
(Specify)

02 WASTE QUANTITY AT SITE

(Measures of waste quantities must be independent)

TONS

CUBIC YARDS unknown

NO. OF DRUMS

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A. TOXIC  
☐ B. CORROSIVE  
☐ C. RADIOACTIVE  
☐ D. PERSISTENT  
☐ E. SOLUBLE  
☐ F. INFECTIOUS  
☒ G. FLAMMABLE  
☒ H. IGNITABLE  
☒ I. HIGHLY VOLATILE  
☐ J. EXPLOSIVE  
☐ K. REACTIVE  
☐ L. INCOMPATIBLE  
☐ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	unknown		The following substances are the main toxic organics presently generated as a result of the plant's degreasing process (2) (3). If a sludge lagoon was used as a means of disposal, it could contain similar organics and inorganics.
OLW	OILY WASTE			
SOL	SOLVENTS	unknown		
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	unknown		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SLU	trichloroethylene	79-01-6	These substances may have been disposed of in an onsite metal	unknown	
SLU	1,1,1-trichloroethane	253-23-891		unknown	
SLU	tetrachloroethylene	127-18-4		unknown	
SLU	chloroform	67-66-3		unknown	
SLU	methyl chloride	7487	hydroxide sludge lagoon (2).	unknown	
SLU	toluene	108883		unknown	
SLU	dimethyl phthalate	131113		unknown	
MES	nickel	7440020		unknown	
MES	copper	7440508		unknown	
MES	chromium	7440473		unknown	

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

1. MacKenzie, B. (NUS/FIT). 1987b. Telecon with Rich Pease (CT DEP).
2. Bristol Babcock. 1984. Solvent Management Plan.
3. CT DEP. 1985. NPDES Permit. Bristol Babcock (1/11/85).





POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE 02 SITE NUMBER  
CT D981898406

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: unknown 04 NARRATIVE DESCRIPTION

Contamination from an alleged onsite lagoon could migrate to groundwater. However, because the site's topography and proximity to the Naugatuck River, an impact on local private wells seem improbable. Also 998% of the population is on municipal water supply (5).

01 ☒ B. SURFACE WATER CONTAMINATION 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Although there have been violations of the NPDES permit, there is no specific incident of surface water contamination from onsite storage. Runoff from potentially contaminated soil could discharge to Naugatuck River (4).

01 ☐ C. CONTAMINATION OF AIR 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

N/A

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☐ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

N/A

01 ☒ E. DIRECT CONTACT 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: unknown 04 NARRATIVE DESCRIPTION

The site is restricted on all sides by a fence. Direct contact would be limited to company employees.

01 ☒ F. CONTAMINATION OF SOIL 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 AREA POTENTIALLY AFFECTED: unknown 04 NARRATIVE DESCRIPTION  
(Acres)

A 1962 P-5 report identifies industrial waste discharge to stream and ground. The site is also listed as having a metal hydroxide sludge lagoon (1).

01 ☒ G. DRINKING WATER CONTAMINATION unknown 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

As explained in section A above, the potential of drinking water contamination resulting from the sludge lagoon, is low.

01 ☒ H. WORKER EXPOSURE/INJURY unknown 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 WORKERS POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

Although the potential for worker exposure would most likely result from ongoing activities, the sludge lagoon may still pose a hazard.

01 ☒ I. POPULATION EXPOSURE/INJURY unknown 02 ☐ OBSERVED (DATE: \_\_\_\_\_) ☒ POTENTIAL ☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

If a sludge lagoon does exist, the main receptor would be the Naugatuck River. Therefore, the potential for exposure would come from the recreational use of the river.



POTENTIAL HAZARDOUS WASTE SITE  
PRELIMINARY ASSESSMENT

PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE CT 02 SITE NUMBER D981898406

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☒ J. DAMAGE TO FLORA  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

Contaminants from this site could affect aquatic flora in the Naugatuck River.

01 ☒ K. DAMAGE TO FAUNA  
04 NARRATIVE DESCRIPTION (include name(s) of species)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

Contaminants from this site could affect aquatic fauna in the Naugatuck River.

01 ☒ L. CONTAMINATION OF FOOD CHAIN  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

Contaminants could affect organics in the Naugatuck River, which is used for recreational fishing.

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES  
(Spills/runoff/standing liquids/leaking drums)

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☒ POTENTIAL

☐ ALLEGED

03 POPULATION POTENTIALLY AFFECTED: \_\_\_\_\_ 04 NARRATIVE DESCRIPTION

If the lagoon does exist, the stored contaminants may be very unstable and mobile. It is unknown whether the lagoon was lined.

01 ☐ N. DAMAGE TO OFFSITE PROPERTY  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

N/A

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

Bristol Babcock has had violations of its NPDES permit for higher-than-permitted concentrations of cyanide and cadmium discharged to the river.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING  
04 NARRATIVE DESCRIPTION

02 ☐ OBSERVED (DATE: \_\_\_\_\_)

☐ POTENTIAL

☐ ALLEGED

N/A

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

It is unknown how many private wells are within one mile of the site. There are approximately 1,558 residents who live within one mile of the site and 99% of Waterbury is served by a municipal supply system. The Naugatuck River is mostly used for recreational purposes.

III. TOTAL POPULATION POTENTIALLY AFFECTED: unknown

IV. COMMENTS

Bristol Babcock was formerly owned by American Chain and Cable, and is currently for sale.

V. SOURCES OF INFORMATION (Cite specific references, e. g., state files, sample analysis, reports)

1. CT DEP. 1981. Water Compliance Unit, Interdepartment Message 10-30-81.
2. CT DEP. 1980. Survey of Major Water Utilities in Connecticut.